CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : **CP-RW-2021-02-16-33** **Date: 17-07-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 15-07-21

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 15-07-21

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

* The results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2021-02-16-33** **Date: 29-07-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 27-07-21

Type of Mix : DBM-Plant (Dense Bituminous Macadam)

Date of test : 27-07-21

Weight of Sample : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	250	250	5.00	95.00	90-100
19	350	600	12.00	88.00	71-95
13.2	450	1050	21.00	79.00	56-80
4.75	1750	2800	56.00	44.00	38-54
2.36	400	3200	64.00	36.00	28-42
0.3	1350	4550	91.00	9.00	7-21
0.075	250	4800	96.00	4.00	2-8
PAN	200	5000	0.00	0	0

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR DENSE BITUMINOUS MACADAM

Lab ID : **CP-RW-2021-02-16-33** **Date: 30-07-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 27-07-21

Type of Mix : DBM (Dense Bituminous Macadam)

Date of test : 27-07-21

Table 500-6 : Physical Requirements fo Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	8.0	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	12.0		
Strength	Aggregate Impact Value	24.0	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.58	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.38	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No : TP-3668

TESTS RESULTS ON STABILITY OF MIX

Lab ID : CP-RW-2021-02-16-33 Date: 30-07-21

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.03

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.03 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Sunrity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project) Ynk Zone/WO/150/2020-21

Date of Receipt : 27-07-21

Type of Mix : DBM (Dense Bituminous Mecadam)

Date of test : 27-07-21

The results of the tests conducted on the Dense Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	-

* The results obtained are satisfactory as per standard requirements.

20.07.21

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
K KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO

AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No : TC-6648

TEST REPORT OF AGGREGATE STRIPPING VALUE OF ROAD AGGREGATE (IS:6241)

Lab ID	:	CP-RW-2021-02-16-33 **Date: 30-07-21**
Project Name	:	Improvements to Roads and Drains at Kattigenahalli Colony Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05
		Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division
Agency	:	Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78
Customer Reference	:	EE(Project)/Vnk Zone/WO:150/2020-21
Date of Receipt	:	27-07-21
Type of Mix	:	DBM(Dense Bituminous Macadam)
Date of test	:	27-07-21
Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained stripping Percentage	Specified limits as per MORTH specification table 900-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

M KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1

*****End of Report*****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Date: 09-08-21

Lab ID	:	**CP-RW-2021-02-16-33**
Project Name	:	Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05 Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division
Agency	:	Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78
Customer Reference	:	EE(Project)/Ynk Zone/WO/150/2020-21
Date of Receipt	:	07-08-21
Type of Mix	:	DBM (Dense Bituminous Macadam)
Date of test	:	07-08-21

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	4.8	4.8
4	Average percentage	%	4.8	

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

Lab ID : CP-RW-2021-02-16-33 Date: 09-08-21

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 475

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.4	14.4	3.03	97.0	90-100
19	24	38.4	8.08	91.9	71-95
13.2	120	158.4	33.35	66.7	56-80
4.75	96	254.4	53.56	46.4	38-54
2.36	80	334.4	70.40	29.6	28-42
0.3	62.4	396.8	83.54	16.5	7-21
0.075	52.8	449.6	94.65	5.3	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 476

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.8	14.8	3.11	96.9	90-100
19	24	38.8	8.15	91.8	71-95
13.2	120	158.8	33.36	66.6	56-80
4.75	96	254.8	53.53	46.5	38-54
2.36	78	332.8	69.92	30.1	28-42
0.3	62.4	395.2	83.03	17.0	7-21
0.075	52.8	448	94.12	5.9	2-8

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No : 15/4648

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2021-02-16-33 **Date:** 04-08-21
Project Name	:	Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05
		Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division
Agency	:	Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78
Customer Reference	:	EE(Project)/Ynk Zone/WO/150/2020-21
Date of Receipt	:	02-08-21
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	02-08-21
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specified limits as per MORTH specification table 500-17(grading 2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2021-02-16-33** **Date: 05-08-21**
Project Name	:	Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05 Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division
Agency	:	Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78
Customer Reference	:	EE(Project)/Ynk Zone/WO/150/2020-21
Date of Receipt	:	02-08-21
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	02-08-21

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

29.07.21

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID : **CP-RW-2021-02-16-33** **Date: 05-08-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 02-08-21

Type of Mix : BC (Bituminous Concrete)

Date of test : 02-08-21

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	11.8		
Strength	Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.21	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

20.8.21

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TESTS RESULTS ON STABILITY OF MIX

Lab ID : **CP-RW-2021-02-16-33** **Date: 05-08-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 02-08-21

Type of Mix : BC (Bituminous Concrete)

Date of test : 02-08-21

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	–

* The results obtained are satisfactory as per standard requirements.

29-X-21

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2021-02-16-33** **Date: 10-08-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05
Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 09-08-21

Type of Mix : BC (Bituminous Concrete)

Date of test : 09-08-21

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	471	470
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.80	6.00
4	Average percentage	%	5.9	

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

Lab ID : CP-RW-2021-02-16-33 **Date: 10-08-21**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 477

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Scelled limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	14.0	86.0	70-88
4.75	112	178	37.8	62.2	53-71
2.36	88	266	56.5	43.5	42-58
1.18	29	295	62.6	37.4	34-48
0.6	11	306	65.0	35.0	26-38
0.3	46	352	74.7	25.3	18-28
0.15	45	397	84.3	15.7	12-20
0.075	50	447	94.9	5.1	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 470

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Scelled limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.0	86.0	70-88
4.75	112	178	37.9	62.1	53-71
2.36	88	266	56.6	43.4	42-58
1.18	29	295	62.8	37.2	34-48
0.6	11	306	65.1	34.9	26-38
0.3	46	352	74.9	25.1	18-28
0.15	45	397	84.5	15.5	12-20
0.075	52	449	95.5	4.5	4-10

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2021-02-16-33**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05 **Date: 17-08-21**

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 16-08-21

Type of Mix : BC (Bituminous Concrete)

Date of test : 16-08-21

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	470	469
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.00	6.20
4	Average percentage	%	6.1	

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

Lab ID : **CP-RW-2021-02-16-33** **Date: 17-08-21**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 470

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.0	86.0	70-88
4.75	112	178	37.9	62.1	53-71
2.36	88	266	56.6	43.4	42-58
1.18	29	295	62.8	37.2	34-48
0.6	11	306	65.1	34.9	26-38
0.3	46	352	74.9	25.1	18-28
0.15	45	397	84.5	15.5	12-20
0.075	51	448	95.3	4.7	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.1	85.9	70-88
4.75	112	178	38.0	62.0	53-71
2.36	88	266	56.7	43.3	42-58
1.18	29	295	62.9	37.1	34-48
0.6	11	306	65.2	34.8	26-38
0.3	46	352	75.1	24.9	18-28
0.15	45	397	84.6	15.4	12-20
0.075	50	447	95.3	4.7	4-10

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

CIVIL PRO

AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2021-02-16-33** **Date: 24-08-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 23-08-21

Type of Mix : BC (Bituminous Concrete)

Date of test : 23-08-21

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	469	469
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.20	6.20
4	Average percentage	%	6.2	

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

20-2-21

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by TapScanner

Lab ID : **CP-RW-2021-02-16-33** **Date: 24-08-21**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.1	85.9	70-88
4.75	112	178	38.0	62.0	53-71
2.36	88	266	56.7	43.3	42-58
1.18	29	295	62.9	37.1	34-48
0.6	11	306	65.2	34.8	26-38
0.3	46	352	75.1	24.9	18-28
0.15	45	397	84.6	15.4	12-20
0.075	51	448	95.5	4.5	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.1	85.9	70-88
4.75	112	178	38.0	62.0	53-71
2.36	88	266	56.7	43.3	42-58
1.18	29	295	62.9	37.1	34-48
0.6	11	306	65.2	34.8	26-38
0.3	46	352	75.1	24.9	18-28
0.15	45	397	84.6	15.4	12-20
0.075	52	449	95.7	4.3	4-10

* The results obtained are satisfactory as per standard requirements.

20.25

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2021-02-16-33**	**Date: 24-07-21**
Project Name	:	Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05 Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division	
Agency	:	Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78	
Customer's Reference	:	EE(Project)/Ynk Zone/WO/150/2020-21	
Date of Receipt	:	22-07-21	
Sample Type	:	Bitumen	
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)	
Date of test	:	22-07-21	

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	64	60 to 70
2	Softening Point, °C	51.2	Min. 40°C
3	Ductility, cm	98	Min. 75cm
4	Flash point, °C	245	Min. 220°C
	Fire point, °C	272	

* The results obtained are satisfactory as per standard requirements.

20.7.21

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

B.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by TapScanner

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : CP-RW-2021-02-16-33 **Date:** 10-08-21

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Kattigenahalli Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 9th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer Reference : EE(Project) Ynk Zone/WO/150/2020-21

Date of Receipt : 09-08-21

Type of Mix : Tack coat

Date of test : 09-08-21

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Scanned by TapScanner

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : **CP-2021-02-16-33** **Date: 28-06-21**

Project Name : Improvements to Roads and Drains at Kattigenahalli Colony ,Chokkanahalli Colony , Thirumenahalli Colony , Jakkur Colony and Basavalingappa Nagara Colony in Ward No.05

Improvements to Roads and Drains at Basavalingappa Nagara Colony in Ward No.05 (Jakkur) Byatarayanapura Sub Division

Agency : Sri.K Dileep Kumar, No.38, 5th Cross, Suncity Layout, 7th Phase, J P Nagar, Bangalore-78

Customer's Reference : EE(Project)/Ynk Zone/WO/150/2020-21

Date of Receipt : 25-06-21

Sample Type : Birla Super 53grade

Reference to BIS codes : IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
IS 4031 (Part 1,2 3,4,5, 6,11):1988
IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4
IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5
IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6
IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5
IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6

Date of test : 26-06-21

Environmental Conditions during test : Temperature: 26°C
Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.95	_
2	Finess by Air permeablity method (m^2/kg,Min)	285.3	225m^2/kg, Min
3	Density (gm/cc)	3.14	_
4	Standard Consistency (%)	29.5%	Not specified
5	Initial Setting time	150 minutes	Not less than 30 minutes
6	Final Setting time	245 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Scanned by TapScanner